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ABSTRACT

This paper reports on the use of the Minnesota Teacher Attitude Inventory (MTAI) to measure scores of teachers participating in a multicultural education institute, which focused on cultural factors in learning and the development of creative educational materials. First, the paper discusses the problem of teachers' maintaining positive attitudes toward multiculturalism (as measured by the MTAI) after the inservice training experience concludes. Efforts to improve the effects of the inservice program by encouraging mutual support among teachers and administrators are then described and MTAI results of the 1981 participants are favorably contrasted with the results of 1966 and 1967 participants. It is concluded that follow-up activities and improved institute content reversed the earlier trend of regression after a short term gain. (GC)

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Inservice Education in Multicultural Education and Its Effect on Teacher Attitudes

by

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ABSTRACT

This study reports on the use of the Minnesota Teacher Attitude Inventory (MTAI) to measure scores of teachers participating in a multicultural education institute. The institute program consisted of an intensive two-week summer session and was supplemented by a Fall follow-up. The MTAI was administered three times: at the beginning of the summer, and at the end of the two-week session and at the end of the follow-up.

An analysis of the MTAI scores showed that the means continued to increase across the three administrations of the test. When the scores were illustrated by patterns it was discovered that 72 percent of the teachers showed a favorable trend. The results suggest that the teachers became more child centered in practice which was a planned outcome of the institute program. The results also indicate more favorable outcomes when compared to earlier institute programs which did not include a structured follow-up.

INSERVICE EDUCATION IN MULTICULTURAL EDUCATION AND ITS EFFECT ON TEACHER ACTIVITIES [1]

Introduction

For approximately fifteen years the authors have been involved in a variety of inservice institutes. Typically, institutes were conducted during the summer, and for many there was follow-up during the academic year. Institutes addressed a variety of needs, and some were directed at experienced teachers who work with children representing a diversity of cultural backgrounds. During the Sixties and Seventies, these institutes had titles such as "Institute for Teachers of Disadvantaged Youth" or "Improving Educational Opportunities for Inner-City Children." In 1981 an "Institute in Multicultural Education" was offered in cooperation with the Toledo Public Schools.

Although the specific content of the programs has changed over the years, generally the instructional components have included the study of cultural factors, psychology of learning with emphasis on cultural differences, and instruction in the location and development of creative educational materials. Teachers from city schools were often involved in planning the institute curriculum and were quite adamant in their desire to receive "practical" assistance in solving everyday classroom problems.

Efforts were made to satisfy this perceived need. However, institute faculty insisted that instruction be designed to impact upon

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[1] The inservice institute discussed in this report was funded by the State of Ohio Department of Education, under the Teacher Institutes Program, State Appropriation 207-518.

attitudes of teachers, teaching culturally diverse groups of students, as well as emphasizing classroom methodology. Therefore, the institute included use of local community people, field trips and various film materials to influence teacher attitudes in a positive way toward their professional roles.

Inventories directly measuring multicultural attitudes are generally not available, therefore, the Minnesota Teacher Attitude Inventory (MTAI) was used. As attitudes toward culturally diverse students improve, the teachers become increasingly child centered in practice. In applying this concept with culturally diverse student populations it means that all children, no matter what their race or cultural background are treated as persons with learning potential; that the teacher respects them as persons and teaches them without the intervention of a negative, self-fulfilling prophecy.

Positive multicultural attitudes are not developed simply because the professors are persuasive, but because the institute curriculum is designed on sound cognitive information in sociology and psychology of education. In essence, an institute curriculum proceeds from the premise that teachers understand students as cultural individuals. They are then able to design and use materials to accommodate the unique backgrounds and learning styles of the children.

Review of Literature

Studies of institute participants in 1966 and 1967 offered evidence which suggested that favorable attitude changes of teachers, as measured by the MTAI, did not persist when the institute concluded and teachers returned to their schools (Nussel & Baumann, 1968). This

conclusion was reached by testing the teachers three times; once at the beginning of the institute, again after the three week program and again after approximately five months. Unfortunately, no normal follow-up activities were required so only those persons who volunteered were, in fact, tested three times. Only about one-half of the participants were tested three times and of these about one-half showed a pattern of scores for which the first and third scores were approximately the same with the second score being the highest score. This kind of regression suggested that the effects of institutes "wears-off" even when participants reported satisfaction with the program.

Concern about how to achieve important outcomes in teacher inservice, particularly in multicultural education, have been observed. "Teacher trainers are attempting to facilitate the teacher's understanding of what it means to initiate and maintain an approach that acknowledges and responds to the wide range or differences in our society." (Baker, 1973: 306) Hillard stated: "Multicultural education and multicultural teacher education must deal with a fundamental problem which goes beyond a minimal concern for sharing information about the history and cultural patterns of ethnic groups in the world." (Hillard, 1974: 1)

The institute described in this report attempted to meet the concerns quoted above by emphasizing teacher attitude change as well as cognitive understandings. However, a survey of 82 elementary teachers in California revealed:

> ...the multicultural inservice had little effect on teachers' acquisition of knowledge about minority groups, their understanding of sexism and racism in schools and society, or their insight into minority group needs and/or problems....

> few teachers felt the need to revise their teaching strategies and/or curriculum as a result of inservice programs. (Cross & Deslonde, 1978: 103)

Perhaps that program failed to include a number of important elements in inservice education of teachers as reported by Zigarmi, Betz and Jensen (1977). They concluded that successful inservice programs:

1. "...provide teachers with choices about whether to attend, what to focus on and when to start."
2. include a planned follow up.
3. provide that "teachers can be resources to each other," and
4. provide for teachers to "have been involved in planning" from the beginning. (p. 551)

The 1981 multicultural education institute included the above components.

Description of Institute

Because of the regression in the 1966 and 1967 MTAI scores and because there was no way of compelling teachers to implement learnings or materials developed during the summer programs, we now include structured follow-up activities in all institute proposals.

Planning for the 1981 program began in late 1980 with meetings of Toledo Public Schools administrative personnel and principals of schools registering a multiethnic student body. Principals were instructed that if they decided to participate they would need to attend institute sessions and assist teachers in implementation of multicultural education activities. Teacher representatives from each selected school attended subsequent planning sessions to offer their advice regarding program components. A proposal was submitted and subsequently funded by the Ohio Department of Education

The institute was conducted for two weeks with all-day sessions

during the summer, Traditional instruction included lectures, panels and films. Work time was built into the daily schedule so that teachers could locate and create instructional materials relevant to multicultural education. It was stressed throughout the summer session that the materials were expected to be used when the teachers returned to school. Each principal coordinated efforts to create a thematic curriculum program, e.g. "Multicultural Holiday Observances," "Indians," "Our Ancestors," "Blacks in Northwest Ohio," but each teacher had considerable latitude in creating the activities appropriate for his/her own classroom. At the end of the two weeks, implementation plans were written up, handed in and evaluated.

The teachers also evaluated institute progress up to that point. They were favorably impressed but offered constructive comments relative to needs during the follow-up sessions, e.g. more information on Toledo history, blacks in Toledo and some material on sexism.

Five two-hour, evening, follow-up sessions were scheduled during October and November, 1981. These were designed to offer instruction in areas omitted during the summer. Furthermore, participants planned with faculty relative to the best time for implementation plans to be observed. Times had to be arranged so that faculty could actually see the multicultural lesson being taught by the teacher. We assumed that once such a lesson was taught and critiqued it stood a good chance of surviving in the curriculum.

Procedures

The 54 institute participants were administered the MTAI at three points during the institute: (1) the first day of the two-week summer

portion, (2) the final day of the summer portion, and (3) the final meeting of the fall portion. Thus, there were 11 calendar days between the first two administrations and approximately three and one-half months between the second and third administrations.

The MTAI is an attitude inventory containing 150 items, consisting of opinion statements. Possible responses to items are "Strongly Agree, Agree, etc.," but the possible scores on any item are -1, 1, and +1. thus, total scores can range from -150 to +150 inclusive.

The items on the inventory are quite homogeneous, and increasing scores to some extent reflect an increasingly child-centered, permissive attitude. The MTAI score also relates to open mindedness which is related to a favorable predisposition toward teaching and children. Johnson discovered, for example, that "in all groups student teachers with low scores on the Dogmatism Scale tended to score higher on the MTAI." (Johnson, 1977: 216)

However, the final scale and scoring are based on empirical results of teachers rated by principals as successful or unsuccessful in pupil-teacher relations. The greater the score, the more able a teacher should be to maintain a state of harmonious relations with pupils, characterized by mutual affection and sympathetic understanding. On the basis of these characteristics, the MTAI appears appropriate as a measure of a teacher's increased sensitivity toward the benefits of multicultural education. The MTAI has been identified as "the most popular instrument for measuring teacher attitudes." (Johnson, 1977, p. 214)

Results

The means and standard deviations of the MTAI scores were computed

for each of the three administrations of the MTAI. Correlated samples, t-tests for the difference between means were run. One-tailed, statistical tests were used since the underlying hypothesis was that continued participation in the institute would increase the mean score of whatever population was represented by the participants. The level of significance was set at .05.

The means, standard deviations and t-values are given in Table 1.

Table 1 about here

The mean score continued to increase across the three administrations of the MTAI, and all differences between means in combinations of two were statistically significant. So, the hypothesis of a persistent, positive effect with continued instruction was supported, although the greatest increase in the mean occurred during the summer instruction.

The standard deviation of the scores on the final administration was about 11 points greater than the standard deviations obtained from the first two administrations. The reason for this result was not apparent. The bivariate, correlation coefficients were also computed between the scores of the three administrations. These were Pretest-Post-Summer, .85; Post-Summer-Post-Fall, .66; and Pretest-Post-Fall, .53. Although these were relatively high correlations, they did decrease as the length of time between administrations increased.

The group results are instructive in that they reflect the effects of institute participation upon the elementary teachers. However, the varied patterns of individual change are also informative. Four general patterns, which accounted for 87 percent of the teachers, were identified

for the individual scores across the three administrations. These patterns with their numbers and percentages of participants appear in Figure 1. Patterns A, B and C are increasing patterns, and although A is the

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Figure 1 about here

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most desirable, all are positive patterns. These patterns account for 72 percent of the participants. Pattern D is a regressive pattern, and the change was essentially nullified so that the individual reverted to the pre-institute score by the close of the institute.

The four patterns of Figure 1 account for 47 individuals. The remaining seven individuals had miscellaneous patterns. Three showed a large decrease, then a large increase, sort of an inverted Pattern D. Two showed a consistent decrease. One individual had a large decrease, then no change, and the final participant had no change, then a large decrease. All the miscellaneous patterns were undesirable in terms of intended institute outcomes.

Table 2 illustrates the differences in patterns manifested by the

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Table 2 about here

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three institute groups. The first pattern demonstrates the upward swing by 44 percent of those tested in 1981. The last pattern, showing the regression score in 23 percent of the participants in 1966 and 1967, was reduced to 15 percent in 1981.

Conclusions

Inservice education has demanded substantial effort and resources

over the past decade or so. Many of the topics introduced in recent years, such as multicultural education, have departed from the traditional, extension of knowledge in academic disciplines. Yet there have been few attempts at empirical evaluation of the effects of inservice programs. It may be a dubious assumption that the extension of teacher knowledge alone results in a corresponding increase of teacher effectiveness.

The institute described herein emphasized a social-psychological approach to multicultural education, and the location, preparation an utilization of multicultural, educational materials. However, there was also an emphasis on shifting teacher attitude toward a greater acceptance of the child.

The results of the three administrations of the MTAI supported the hypothesis that institute instruction with the follow-up activity would motivate the desired attitude shift. The statistically significant gains in mean scores are evidence of the institute effect.

How long would the mean performance of the group continue to increase? Undoubtedly not very long, if for no other reason that an inherent ceiling on the MTAI score would soon be reached. But the important characteristic is not a continued increase but stability of the attitude. The administrations of the MTAI spanned about six months, and it is impossible to say what the scores would be a year from now. But in comparision with earlier data, it appears that the follow-up activities and the institute content, reversed the earlier trend of regression after a short-term gain. The implication for inservice, especially inservice in the multicultural area, appears to be that in order to

attain long-term impact attitudes, more than information transmission is necessary.

One other group result is worth noting. Although the correlations between scores on the three administrations of the MTAI were relatively high and positive, they did decrease over time. This indicates that for this group of participants attitude was less stable over time. It may be that the institute activities were contributing to this instability, and this conclusion is supported by the varied patterns of individual scores across the three administrations.

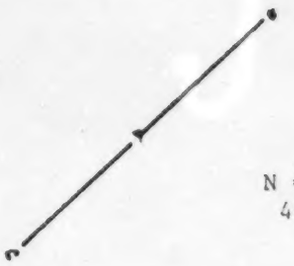
Finally, the differences in individual patterns of scores attest to the varied ways in which the institute affected the teachers. Certainly, the predominance of positive patterns was encouraging. But what about the two teachers who had consistently declining scores? All teachers are not affected the same way by the inservice experience. So, it is well to keep this fact in mind, and to include process evaluation that focuses on the individual. The process evaluation conducted for this institute focused on group results. Process evaluation could also be helpful by identifying individuals not benefiting from the inservice experience.

It has been learned that careful preplanning with school personnel is important in order to include the "practical" aspects deemed imperative by the teachers. However, preplanning is a necessary but not sufficient condition for institute success. It is now apparent to all parties involved--Ohio Department of Education, the teachers and university faculty--that unless forceful and persistent follow-up activities are included, there is little likelihood of attaining institute objectives.

For example, although teachers are not forced to participate in the institute, once they choose to become involved, they are expected to apply knowledges and skills obtained in the program. Since there was practically no attrition it appears that the teachers were willing to put forth this effort.

All-in-all the results of this institute were encouraging and an improvement over the 1966 and 1967 data. But are they a one-time payoff? Will the teachers regress to pre-institutes attitudes after the follow-up is completed? Possibly, but we are optimistic because something innovative was done and done well, and along with the improved attitudes toward children, the positive climate has a good chance of being maintained. The practice reflected by a more positive attitude has a high probability of becoming institutionalized with several teachers supporting one another and receiving cooperation and encouragement from a principal also sensitive toward multicultural education.

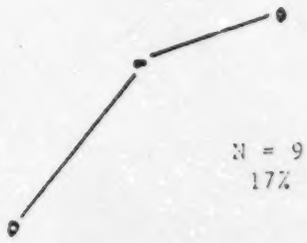
(A)



N = 24
44%

Consistent increase

(B)



N = 9
17%

Large increase; small increase

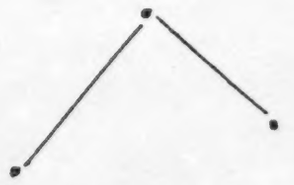
(C)

N = 6
11%

Small increase; large increase

(D)

N = 8
15%



Large increase; large decrease

Figure 1. The four predominant patterns of individual scores across the three administrations of the MTAI.

Table 1

Means, Standard Deviations and Results of Statistical Tests for MTAI Scores

	Mean	sd	t-value*	
Pretest	13.76	34.11		
			6.88	
Post-Summer	31.33	34.55		5.02
			1.93	
Post-Fall	40.04	43.37		

*All t-values statistically significant at $\alpha = .05$, one-tailed test, df = 53.

Table 2

Percentages of Predominate MTAI Scoring Patterns by Year

Pattern		% of Participants		
		Year 1966	Year 1967	Year 1981
		3	7	44
		17	28	17
		n/a	n/a	11
		43	43	15
	N	30	14	54

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